That which is claimed:

1. A system comprising:

an actuator coupled to a manipulandum; and

a controller coupled to the actuator, the controller operable to determine a stored force feedback effect to contribute to a force output by the actuator on the manipulandum.

2. The system of claim 1, wherein the force feedback effect comprises one of a detent effect, a wall effect, and a spring effect.

3. The system of claim 1, wherein the force feedback effect comprises a force feedback effect type and a magnitude.

4. The system of claim 1, wherein the force feedback effect includes at least one parameter, and wherein the at least one parameter is at least one of a stiffness parameter, a damping parameter, a force parameter, and a distance parameter.

5. The system of claim 1, wherein the force feedback value comprises a sum of force contributions from a plurality of stored force feedback effects.

6. The system of claim 1, further comprising a position sensor coupled to the manipulandum and the controller.

7. The system of claim 6, wherein the force output by the actuator is based at least in part on a velocity of a movement of the manipulandum, the velocity calculated on information received from the position sensor.

8. The system of claim 1, wherein the manipulandum comprises a joystick.

9. The system of claim 1, further comprising a deadman switch.

10. The system of claim 1, further comprising a gear transmission disposed between the actuator and the manipulandum.

11. The system of claim 1, wherein the controller comprises a non-volatile memory.

12. The system of claim 1, further comprising a communication port connected to the controller.

13. A method comprising:

outputting a maximum peak force from an actuator on a manipulandum, the maximum peak force associated with a maximum power that the actuator can utilize instantaneously; and

reducing the output of the maximum peak force to an output of a nominal peak force from the actuator when the power utilized by the actuator exceeds an average power level over a predetermined period of time, the nominal peak force associated with a maximum power that the actuator can utilize in continuous steady-state operation.

14. The method of claim 12, wherein outputting the maximum peak force occurs upon initial contact with a simulated object.

15. The method of claim 12, wherein the maximum peak force comprises a magnitude of about twice the magnitude of the nominal peak force.

16. The method of claim 12, wherein the nominal peak force is associated with an average current during operation of the actuator.

17. The method of claim 12, determining when the power utilized by the actuator exceeds the average power level over the predetermined period of time.

18. The method of claim 12, wherein the predetermined period of time is about two seconds.

19. A method comprising:

receiving an input signal comprising a position of a manipulandum;

determining a stored force feedback effect to contribute to a force output by an actuator on the manipulandum.

20. The method of claim 19, further comprising:

receiving a second signal comprising a calculated force feedback effect;

determining a combined force feedback effect to contribute to a force output by an actuator on the manipulandum, the combined force feedback effect comprising the stored force feedback effect and the calculated force feedback effect.